Вам тепл®

quick fixing
doesn t require
any service

enveronmentally
friendly isolation

one “ПИОН”
is worth two
convectors

record low energy
consumption
up to 50% economy

2×
double resource
of the heating
element

120°
increased efficiency
quotient emission

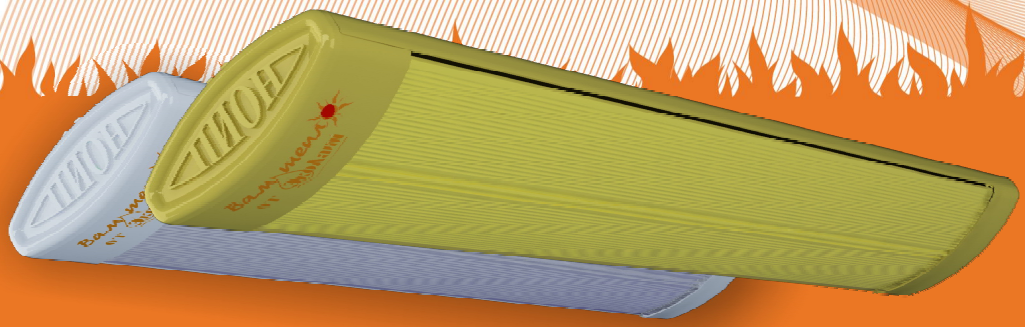
Ceiling heater user guide

ПИОН®

Certified

AB41

CE



Made in Russia
2010.

ATTENTION !!!
before using the heater read this manual.

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1.Introduction

Dear customer !

Thank you for buying new Infrared Ceiling Heater "ПИОН" !

Infrared heaters occupy a special place among heaters meant for ensuring comfortable atmosphere in dwellings and industrial premises. They are economical, environmentally friendly, long-lasting and reliable. They have modern design, do not occupy much space, are mobile and safe.

Infrared heaters are presently recognized as the best energy- saving electrical devices. Energy is economised by transmitting warmth via infrared rays. The heater is installed on the ceiling, the transmitting plate faces the floor and heats up to 25 C. It spreads warm rays at the angle 0f 120 C. This way of transmitting warmth ensures 93% energy accumulation by objects, surfaces and walls while only 7% is dissolved in the air. The temperature is balanced according to the height , the floor is warmer than the air above.

Warm surfaces accumulate warmth and, in their turn, heat the air. It offers a number of advantages as compared to other heating devices; the square of warm surfaces is larger, there are no air-dust currents, the promises cool slower , no energy is lost to heat air under the ceiling, the air doesn t get too dry.These peculiarities ensure energy saving and make the heater the most comfortable and the safest device.

"ПИОН" infrared heater are new improved models. Now they are elegant and more solid due to alluminium alloy. They are covered by powder enamels and have different colours, small size, new forms of fixing and original wide angle emission plate.

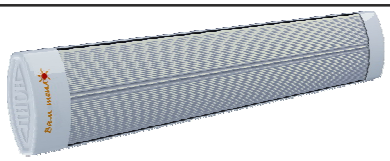
All these features make "ПИОН" infrared heater the first of the best.

Besides, there is a possibility to build up heating systems of different power with the help of special frames ; to combine heaters with acoustic and lightening devices into entire group which looks perfect in modern interiors of any premises; dwellings , offices , shops, stores, etc.

2.Technical data.

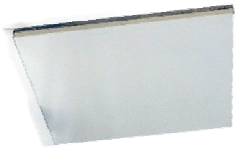
Technical data are given in the table:

ПИОН group



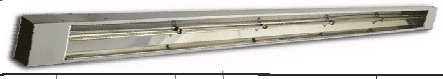
Model	Power (W)	Voltage (V)	Curr. (A)	Size (мм)	Weight (кg)	Heated area (sq.м^2)
ПИОН 04	440	220\230	1,8	780x125x55	2	4/8
ПИОН 06	660	220\230	2,7	1005x125x55	2,8	6/12
ПИОН 10	1100	220\230	4,6	1515x125x55	4,2	10/20
ПИОН 13	1400	220\230	6	1715x125x55	4,2	13/26

Quandro group



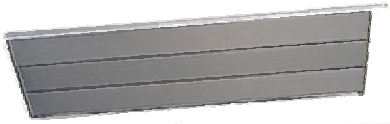
Model	Power (W)	Voltage (V)	Curr. (A)	Size (мм)	Weight (кg)	Heated area (sq.м^2)
квадро 05	500	220	2,5	600x600x35	3,9	5/10

Open heating element group



Model	Power (W)	Voltage (V)	Curr. (A)	Size (мм)	Weight (кg)	Heated area (sq.м^2)
ИКО-0.5	500	220	2,5	795x90x75	2,2	5/10*
ИКО-1.0	1000	220	4,6	1245x112x75	3,1	10/20*
ИКО-1.5	1500	220	6,8	1678x112x75	4,3	15/30*
ИКО-2.0	2000	220	9,1	2176x112x75	5,4	20/40*
ИКО-3.0	3000	220/380	13,6	1674x212x75	6,3	30/60*
ИКО-4.5	4500	220/380	11,8	1674x312x75	9,5	45/90*
ИКО-6.0	6000	220/380	15,8	2182x260x70	10,2	60/120*

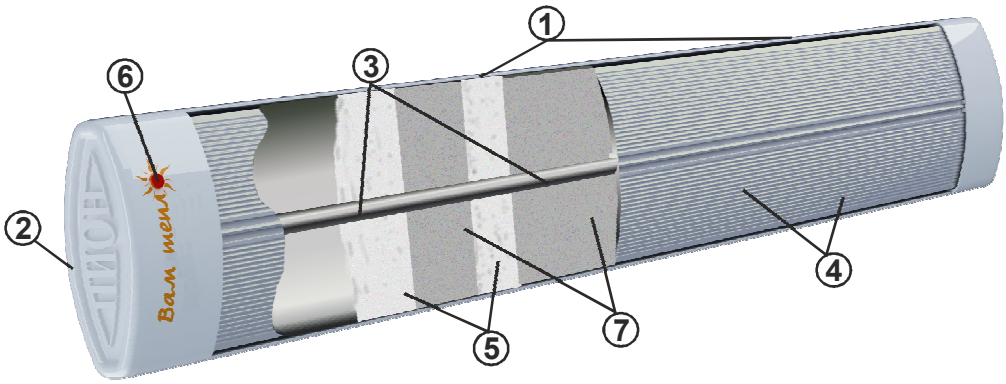
Industrial group



Model	Power (W)	Voltage (V)	Curr. (A)	Size (мм)	Weight (кg)	Heated area (sq.м^2)
ЭЛ 20R	2000	220	9,2	1500x285x53	11	20/40*
ЭЛ 30R	3000	220/380	4,6	1500x415x53	19	30/60*
ЭЛ 40R	4000	220/380	6,1	1500x415x53	19	40/80*

* requires technical account

3. “ПИОН” heater details.



1. Frame.
2. Installation element.
3. Low temperature heating element.
4. Heat-emitting plate.
5. Ceramic isolator.
6. Power indication lamp.
7. Frame plate.

4.Delivery complectation

1.Heater “ПИОН”
2.Installations details
3.Package
4.User manual

5.Safety measures

1.5 Strongly prohibited to touch the surface of working heater to avoid burns !

2.5 Use heater only for its purpose.
3.5 **Strongly prohibited to make any changes in the heater construction !**
Any changes will cancel guarantee !
4.5 Install the heater as said in chapter 6 and 7.
5.5 The heater can be used to warm up dwellings and industrial premises, but for those prone to explosions (A, B categories)
6.5 The heater is permitted in wet premises under the condition water does not get on its surface.
7.5 Do not dip the heater into water or other liquids.
8.5 Do not touch the heater until it is cool.
9.5 The power flex must not touch hot heater surfaces.
10.5 Heater exploitation is not recommended without earth connection (Chapter 7), electrical protection against high voltage and short circuit current is desirable.
11.5 Electrical connection is recommended to be fulfilled by qualified specialists (Chapter 7).
12.5 Connect the heater only to the source of alternating current with voltage 220/230 V.
13.5 Combined exploitation of the heater together with programming devices or timer which turns on the heater automatically even if it is covered or incorrectly installed is forbidden (Chapter 6).
14.5 Heater connection to the power point should use a flex and a plug.
15.5 Use brass wire not less than 2,5 sq. mm., in diameter for connection.
16.5 **If you connect the heater in a wrong way you lose your guarantee service !**
17.5 It is forbidden to hang any objects on a heater, or cover it.
18.5 After installing the heater check its reliability attaching the weight of 12 kg., to the centre.
19.5 Do not repair the device yourself ! It should be done by the service centre specialists only.
20.5 To repair the heater only original spare parts can be used.

6.Installation

ATTENTION !

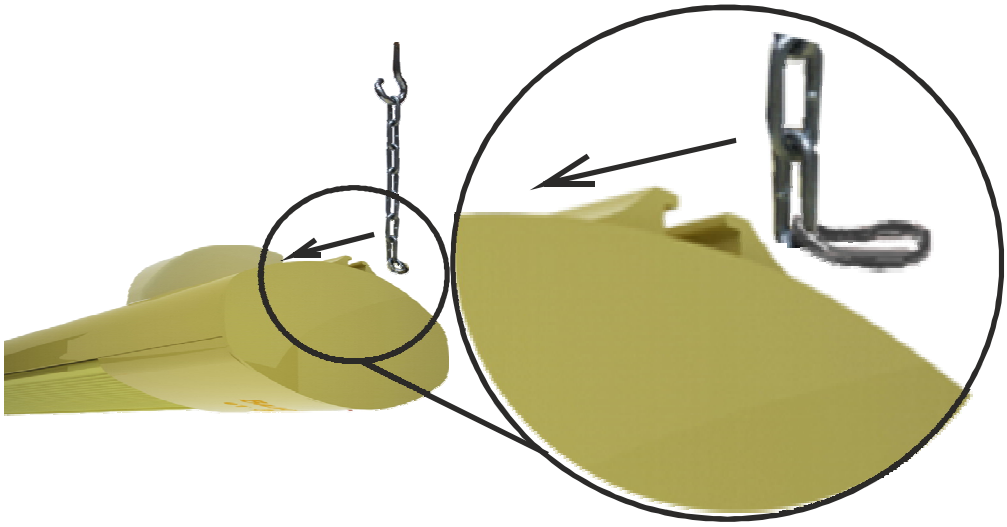
While installation process, heat-emitting plate can be touched only in cotton gloves. In case it is dirty it showed be cleaned with alcohol.

1. Take the heater out of the package and put it on a horizontal surface heater plate down.
2. Define the place for the heater and mark the point of the screw ring (for “ПИОН”) or corner fittings according to the scheme.
3. Screw in the ring and hang the heater with the help of the chain (the length of the chain can be regulated for “ПИОН”). Place the heater between the fittings so that the pegs should fit into the holes and screw the pegs (for industrial).
4. Before switching on, the heat-emitting plate should be cleaned with alcohol.
5. The flex must consist of three wires and have the diameter complying with electrical power. (we recommended polyvinil 3x1,5-2,5)
6. Attach the end of the flex to terminals on the heater taking into account polarity marked on the ends of the flex.
7. Heater connection to the stationary power point with thermoregulator is strictly according to the scheme.
8. Thermoregulator should be placed 1,5 m., above the floor. Do not place it in the zone of direct rays or in the draught to avoid malfunctions.

Installation scheme for “ПИОН”

The end of the chain with a wide link is placed into a hole on the back part of the heater

The heater is fixed on the chains to the screw ring which is screwed into the ceiling.



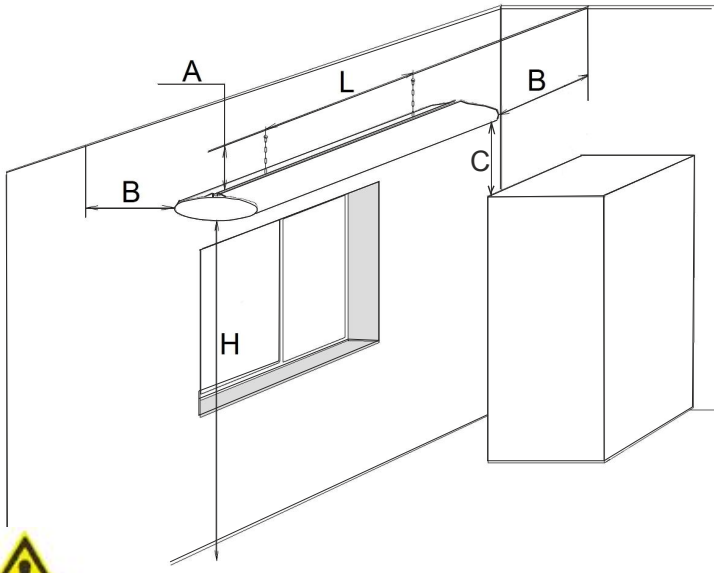
Recommended minimum height of (H) heater fixation.

Model	H
ПИОН 04	1,8
ПИОН 06	2,0
ПИОН 10	2,2
ПИОН 13	2,3
КВАДРО 05	1,8
ИКО-0.5	2,0
ИКО-1.0	2,3
ИКО-1.5	2,5
ИКО-2.0	3,0
ИКО-3.0	3,0
ИКО-4.5	3,5
ИКО-6.0	3,5
ЭЛ 20R	2,5
ЭЛ 30R	2,8
ЭЛ 40R	3,0

ATTENTION !

A- distance to the ceiling, not less then 50 mm.
B- distance to the walls, not less than 500 mm.
C- distance to the objects in the heater functionary zone, not less 500 mm.
L - distance between “ПИОН” fittings can be regulated.

General installation scheme.

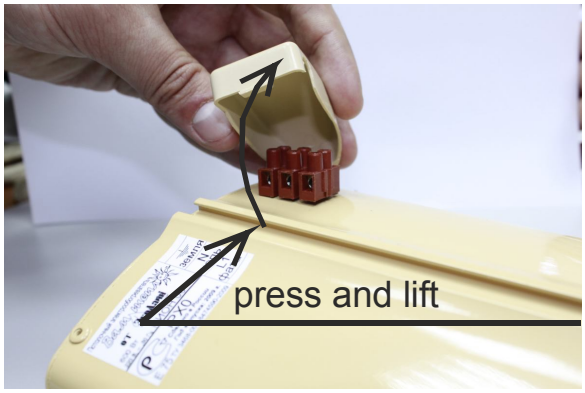


ATTENTION !

The included fixing device ensures safe connection of the heater to natural surfaces (wood, concrete, metall etc.) In case of using artificial ceiling surfaces original fixing devices are allowed with material thermoresistance not less then 80 °C.

7.Electrical connection

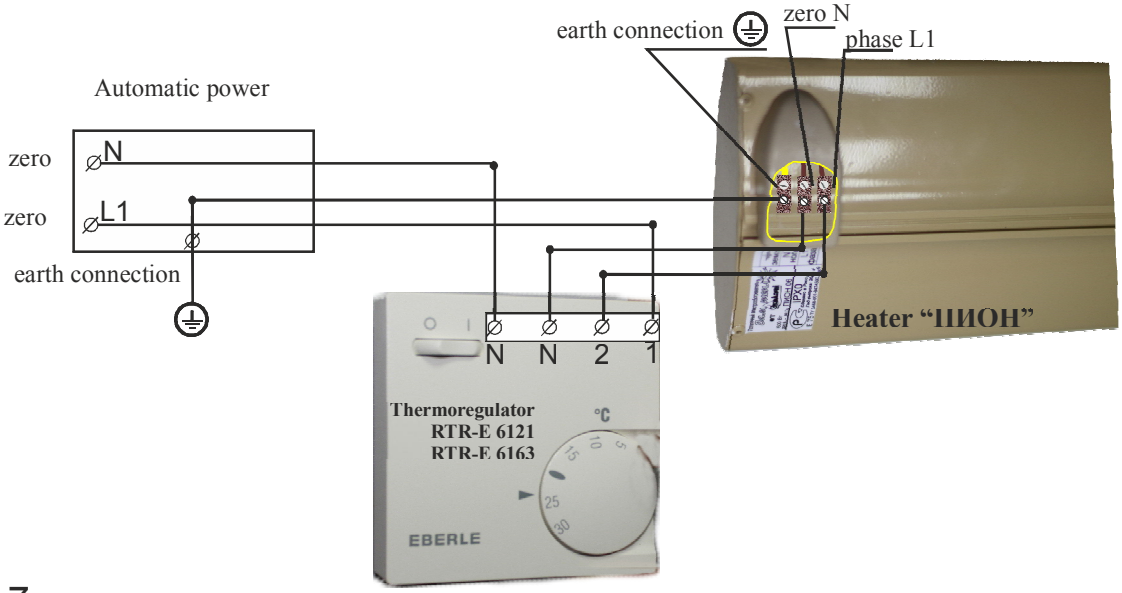
Electrical connection should be fulfilled by qualified specialists in accordance with the chosen scheme depending on the general power and type of model:
ПИОН 04/06/10/13, КВАДРО 05, ИКО 0.5/1.0/1.5/2.0/3.0,
ЭЛ 20R-schemes№1,2,3
ЭЛ 30R/40R, ИКО 4.5/6.0 - scheme № 4,5



Take off the lid and connect the wires according to the scheme.

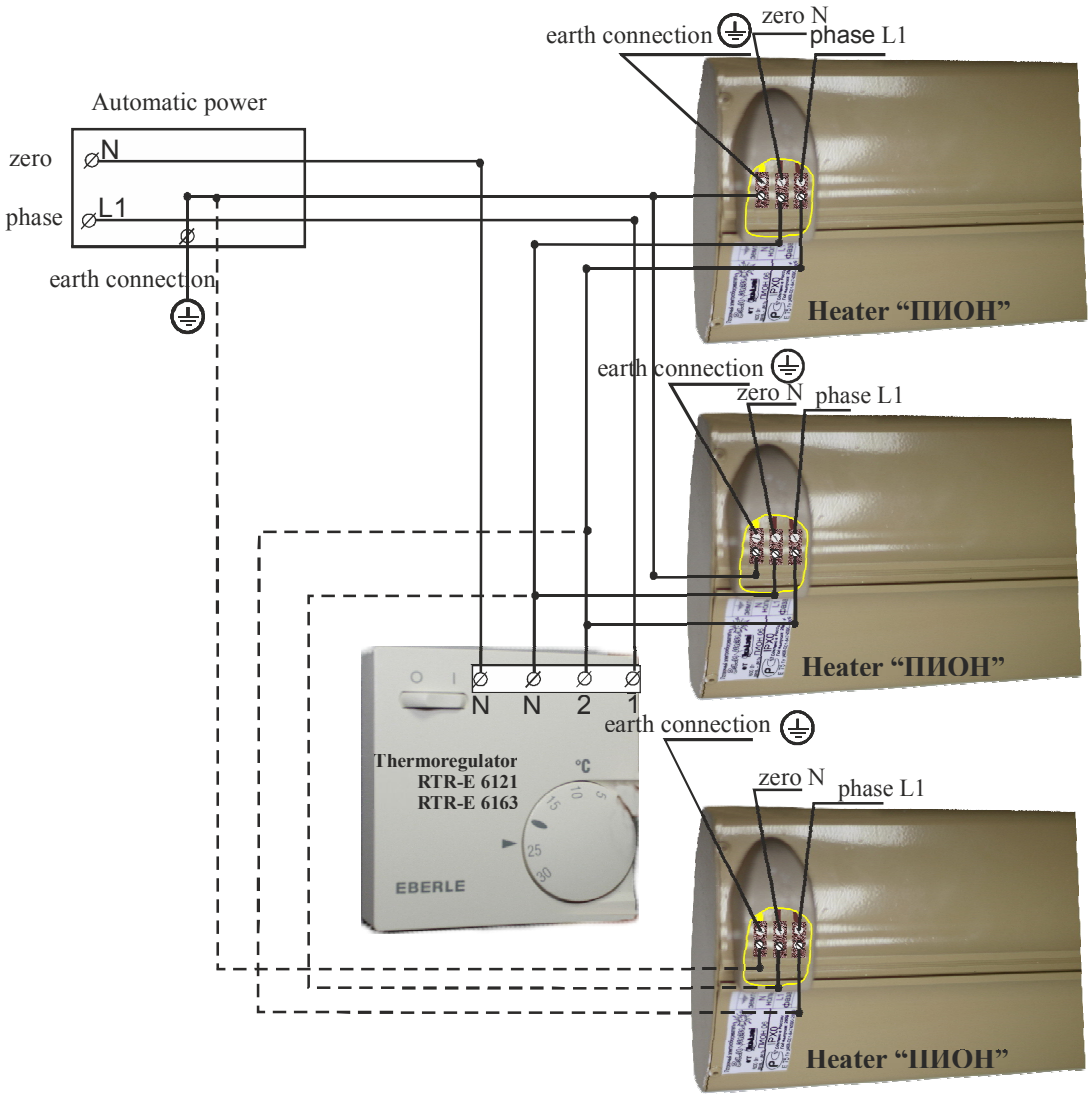
Scheme №1

Thermoregulator RTR connection for the general pressure up to 3,5 kWt.



Scheme №2

Thermoregulator RTR connection for the general pressure up to 3,5 kWt.



8.Start

1. Install the heater in accordance with Chapter 6.
2. Complete the electrical connection in accordance with the scheme (Chapter 7).
3. When the heater is ready for work turn the handle of the thermoregulator and choose the necessary temperature.
4. The chosen temperature will be ensured within 30 minutes.

ATTENTION ! At the beginning of exploitation the small amount of evaporating conservatives may occur. It will disappear in the process of work.

9. Exploitation and technical support.

The heater generally doesn t need any service. To ensure its steady work it is necessary to fulfill the following conditions (after the heater is switched off and cool !) :

1. If necessary use a wet napkin to clean the frame and alcohol to clean the heat-emitting plate.
2. Check the wire contacts and the stability of fixation (once a year).
3. **Ensure proper isolation in the premises otherwise the work of the heater will not be efficient due to cold air currents.**

Heater exploitation conditions*:*

- ***air temperature from -50°C òo +50°C;***
- ***air humidity up 80% at +25°C***

10. Possible disfunctions.

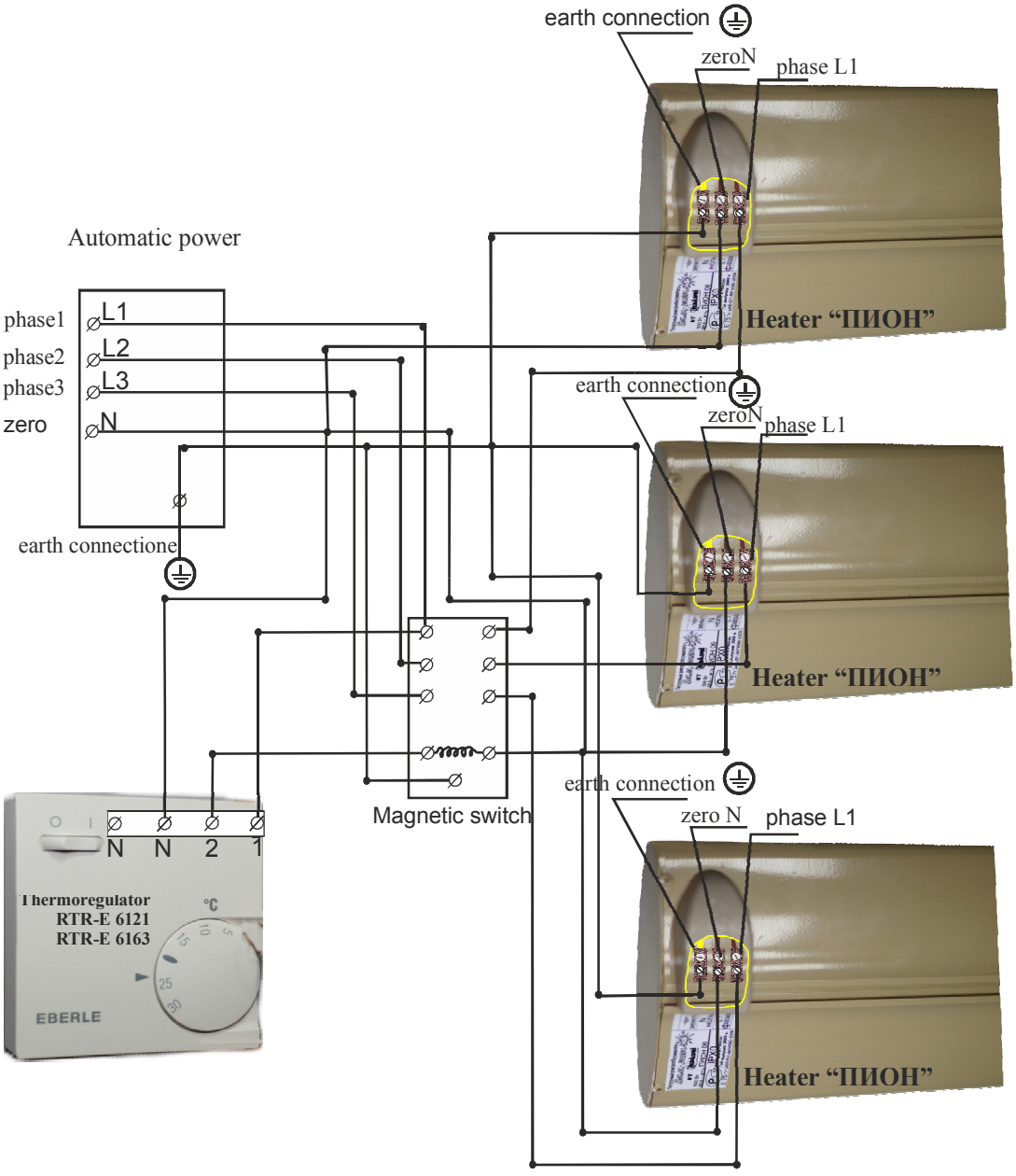
Possible disfunctions	**Ways of treatment**
1.The heater does not give enough warmth	• Check the voltages on the terminals it should be 230+/- 10V • Check the termoregulator • Compare the temperature on your thermometre with the chosen temperature on the termoregulator. The difference must be +/-2C.
2. The heater does not work	• Check the voltage • Check the intactness of the connecting wire • Check the contact of the heater • Check the contact in the power plug • Check the thermoregulator Consult our dealers

11. Storage.

The heater should be stored in its original package in the premises with fluctuation of temperature from -50°C to +50°C, air humidity not more than 80%. The heater should be safe from bangs, dust and moisture. The heat-emitting plate must be treated very carefully. It can t be touched, in case of necessity it can be cleaned with alcohol.

Scheme №3

Thermoregulator RTR connection for the general pressure more than 3,5 kWt.



12. Guarantee coupon.

A.The heater is accepted for guarantee service:

_____
(organization)

_____
(address)

Defect manifestation :_____

_____

Accepting date:_____Service fulfilled date:_____

Signature:_____

B. The heater is accepted for guarantee service:

_____
(organization)

_____
(address)

Defect manifestation :_____

_____

Accepting date:_____Service fulfilled date:_____

Signature:_____

Coupon A

A.The heater is accepted for guarantee service:

_____
(organization)

_____
(address)

Defect manifestation :_____

_____

Accepting date:_____Service fulfilled date:_____

Signature:_____

Coupon B

B.The heater is accepted for guarantee service:

_____
(organization)

_____
(address)

Defect manifestation :_____

_____

Accepting date:_____Service fulfilled date:_____

Signature:_____

13. Guarantee obligations.

The producer guarantees steady work of the heater during 3 years from purchase. If any defects occur during the guarantee period as a fault of the producer, the selling organisation will repair the heater free of charge or replace it on the following conditions.

1. The guarantee is valid only if the invoice is presented.
2. The guarantee does not cover the damage caused as a result of changing the device without preliminary written consent of the produser in order to make it comply with local technical standards and safety norms.
3. The guarantee is not valid in case of:

- changing the construction of the device by the customer;
- incorrect exploitation with violation of user guidance rules, violation of technical standards and safety norms;
- repair works fulfilled by unauthorized service centres or dealer;
- accidents, lightning, flood, fire and other reasons beyond the control of the producer;
- defects acquired while transporting (exept cases when transpoting is carried out by autorized dealer);
- defects of the system where the device was used;
- exploitation with increased voltage (more than 10% from normal), and humidity more than 80% at +25°C°

4. The producer has the right to change the construction of the heater if that does not spoil its technical characteristics.

Notes

14.Reception certificate.

ПИОН group

ПИОН 04	ПИОН 06	ПИОН 10	ПИОН 13

Open heating element group

ИКО0.5	ИКО1.0	ИКО1.5	ИКО2.0	ИКО3.0	ИКО4.5	ИКО6.0

Industrial group

ЭЛ 20R	ЭЛ 30R	ЭЛ 40R	КВАДРО 0.5

ПИОН heater complies with
TU3468-001-84745490-2009.

Date of issue_____ Serial N_____

Producing plant representative_____

15. Sales certificate.

Selling organization_____

Address:_____

Sales date:_____Signature_____